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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,710	09/04/2003	Michael S. Ripley	42P16794	7177

8791 7590 01/30/2007
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EXAMINER

CHAI, LONGBIT

ART UNIT	PAPER NUMBER
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2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/655,710

Applicant(s)

RIPLEY, MICHAEL S.

Examiner

Longbit Chai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. No claim for priority has been made in this application.

The effective filing date for the subject matter defined in the pending claims in this application is 9/4/2003.

Drawings

2. Figure 1 should be designated by a legend such as – Prior Art – because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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3. Claims 20 and 24 are rejected under 35 U.S.C. 101 because a storage medium bearing instructions as recited in the claim may be reasonably interpreted as being not limited to computer readable storage media, for example, as referred to in Specification (SPEC: Page 9, Line 13 – 15) as being intended to include communication media that include carrier wave that bear instructions as claimed. Such embodiments of the "manufacture" claims 20 and 24 are not computer elements, which define structural and functional interrelationships between the instructions and the rest of the computer that permit the functionality of the instructions to be realized. Thus, for at least this reason, claims 20 and 24 are directed to a non-statutory subject matter as not being tangible and concrete and it would not be eligible for patentability because it would be eligible for patentability if a practical application was present that produced a useful, concrete and tangible result upon execution of the instructions. In addition, the category of the claimed subject matter as "An article" does not fall within any of the five specified classes of invention defined in 35 U.S.C 101 and is merely directed to a software listing or program per se which is non-statutory.

Any other claims not addressed are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 13, 20, 17 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13, 20, 17 and 24, the use of the phrase "attempting to detect a watermark" renders these claims indefinite, since this phrase leads to a question of whether the claimed operations really / actually occurred and as such merely suggests limitations or makes limitations indefinite and optional. Any other claims not addressed are rejected by virtue of their dependency should also be corrected.

5. Claims 5, 9, 12, 16, 19, 23 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. This is because the specification, while being disclosed for the sensitivity of detecting the watermark of a recording device should be more sensitive (i.e. less computational precision) than that of a playback device because it would be more likely that the recording device will detect the watermark with a more sensitive watermark detector (SPEC: PG-PUB / Para [0012]), does not reasonably address the other fundamental and critical issue regarding the accuracy of detection because less precision detection technique on recording device may fail to accurately detect the watermark and result in falsely reporting the existence of watermark and encrypt the digital content (SPEC: PG-PUB / Figure 2 Element 40 & 18). This illegal digital content would then be transferred to playback device and decrypted for play component without any further watermark checking

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process set forth at the playback device according to the instant specification (SPEC: PG-PUB / Figure 2 Element 23 & 24) and as a result, it would completely defeat the original purpose of invention subject matters to prevent copy right violation of digital content. Any other claims not addressed are rejected by virtue of their dependency should also be corrected.

6. Claims 1, (6, 10, 13, 17, 20 and 24) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite because the claim language "more sensitive" as presented at the third claim limitation is considered to be unclear in its meaning and its context about what exactly is the scope of sensitiveness that the claims intend to cover even though a few examples of sensitiveness have been described in the specification; however, the context of sensitivity has not been defined precisely. Examiner asserts if the claims are merely directed to the sensitiveness regarding how easy to detect the watermark without the consideration of accuracy that may result in falsely report the watermark detection, the claim limitation should not be alleged as a subject matter of patentable inventions. Examiner further notes the broadest and reasonable interpretation has been made in the following Office action in order to further continue the prosecution of examinations.

Any other claims not addressed are rejected by virtue of their dependency should also be corrected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy et al. (U.S. Patent 2003/0103645).

As per claim 1, 6 and 10, Levy teaches a system for detection of a watermark in digital content, comprising:

a recording device having a first watermark detection component of a first sensitivity for detecting the watermark in digital content (Levy: Para [0004] and Para [0011]); and

a playback device having a second watermark detection component of a second sensitivity for detecting the watermark in a digital content recording made by the recording device (Levy: Para [0004] and Para [0038] last two sentences).

wherein the first sensitivity is more sensitive than the second sensitivity (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line 1 – 5 and Para [0085] Line 10 – 20: Examiner notes it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because

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Levy teaches (a) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (b) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (c) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20), (d) Therefore, Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

As per claim 2, Levy teaches the digital content is unencrypted (Levy: Para [0037]: text file).

As per claim 3 and 7, Levy teaches the first sensitivity causes the first watermark detection component to check multiple channels of the digital content for the watermark when the digital content comprises multi-channel audio data (Levy: Para [0027] and Para [0006]: multimedia, as used in Levy, refers to any data that has a collection of two or more different media types such as music (or other audio) that has multiple audio

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channels. The method decodes watermarks in the media signals, uses the watermarks from the different media signals to control processing of the multimedia content such as using the watermark in one audio channel, such as the audio track, to locate the watermark in another audio channel. Therefore, Examiner notes multiple channels are checked in multi-channel audio data).

As per claim 4, 8 and 11, Levy teaches first sensitivity causes the first watermark detection component to check the digital content for the watermark more often than the second watermark detection component (Levy: Para [0085] Last Sentence and Para [0008]: referred to claim 1, "more often" is interpreted as checking w.r.t. a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085]).

As per claim 5, 9 and 12, Levy teaches the first sensitivity for the first watermark detection component causes the recording device to check the digital content for the watermark with a computational precision less than a computational precision of the second watermark detection component (Levy: Para [0085] Last Sentence: referred to claim 1, the sensitivity of detecting the watermark of a recording device should be evidently more sensitive (i.e. less computational precision) than that of a playback

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device because it would be more likely that the recording device will detect the watermark with a more sensitive watermark detector in the first place so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the player).

8. Claims 13 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior-art (U.S. Patent 2005/0053238), hereafter referred as AAP, in view of Levy et al. (U.S. Patent 2003/0103645).

As per claim 13 and 20, AAP teaches a method for processing unencrypted digital content in a recording device for subsequent playback by a playback device comprising:

making an unencrypted recording of the unencrypted digital content when the watermark is not detected in the unencrypted digital content (AAP: Figure 1 / Element 26 & 28); and

making an encrypted recording of the unencrypted digital content when the watermark is detected in the unencrypted digital content (AAP: Figure 1 / Element 18 & 20).

attempting to detect a watermark in the unencrypted digital content by a watermark detection component of the recording device (AAP: Figure 1 / Element 10 & 14).

However, AAP does not teach the detection being more sensitive for detecting the watermark than a detection operation of a watermark detection component of the playback device.

Levy teaches the detection being more sensitive for detecting the watermark than a detection operation of a watermark detection component of the playback device (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line 1 – 5 and Para [0085] Line 10 – 20: Examiner notes it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because Levy teaches (a) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (b) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (c) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20), (d) Therefore, Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Levy within the system of AAP because Levy teaches integrating watermark embedder and detector systems in multimedia data for content authentication and also provide flexible copy protection alternatives by either allowing or preventing the digital content being passed to a playback device as a result of the watermark detection at the recording device (Levy: Para [0023] and Para [0085] Line 15 – 20).

As per claim 17 and 24, AAP teaches method of processing, in a playback device, a digital content recording made by a recording device comprising:

playing the digital content recording when the watermark is not detected (AAP: Figure 1 / Element 24 & 30); and

making an encrypted recording of the unencrypted digital content when the watermark is detected in the unencrypted digital content (AAP: Figure 1 / Element 18 & 20).

not playing the digital content recording when the watermark is detected (AAP: Figure 1 / Element 30: WM detected, do not play).

recognizing whether the digital content recording is encrypted or unencrypted; attempting, by a watermark detection component of the playback device, to detect a watermark in the digital content recording when the digital content recording is unencrypted (AAP: Figure 1 / Element 10 & 14).

However, AAP does not teach the detection being less sensitive for detecting the watermark than a detection operation of a watermark detection component of the recording device.

Levy teaches the detection being less sensitive for detecting the watermark than a detection operation of a watermark detection component of the recording device (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line 1 – 5 and Para [0085] Line 10 – 20: Examiner notes it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because Levy teaches (a) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (b) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (c) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20), (d) Therefore, Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Levy within the system of AAP because Levy teaches integrating watermark embedder and detector systems in multimedia data for content authentication and also provide more flexible copy protection alternatives by either allowing or preventing the digital content being passed to a playback device as a result of the watermark detection at the recording device based on the validity of copy control message derived from the watermark messages).

As per claim 14 and 21, AAP as modified teaches the first sensitivity causes the first watermark detection component to check multiple channels of the digital content for the watermark when the digital content comprises multi-channel audio data (Levy: Para [0027] and Para [0006]: multimedia, as used in Levy, refers to any data that has a collection of two or more different media types such as music (or other audio) that has multiple audio channels. The method decodes watermarks in the media signals, uses the watermarks from the different media signals to control processing of the multimedia content such as using the watermark in one audio channel, such as the audio track, to locate the watermark in another audio channel. Therefore, Examiner notes multiple channels are checked in multi-channel audio data).

As per claim 15, 18, 22 and 25, AAP as modified teaches first sensitivity causes the first watermark detection component to check the digital content for the watermark more often than the second watermark detection component (Levy: Para [0085] Last

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Sentence and Para [0008]: referred to claim 1, "more often" is interpreted as checking w.r.t. a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

As per claim 16, 19, 23 and 26, AAP as modified teaches the first sensitivity for the first watermark detection component causes the recording device to check the digital content for the watermark with a computational precision less than a computational precision of the second watermark detection component (Levy: Para [0085] Last Sentence: referred to claim 1, the sensitivity of detecting the watermark of a recording device should be evidently more sensitive (i.e. less computational precision) than that of a playback device because it would be more likely that the recording device will detect the watermark with a more sensitive watermark detector in the first place so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the player).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LBC

Longbit Chai
Examiner
Art Unit 2131


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SUPERVISORY PATENT EXAMINER
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